We claim:

5

1. A compound or a salt thereof, wherein: the compound corresponds in structure to the Formula X:

X;

Z is selected from the group consisting of -C(O)-, -N(R⁶)-, -O-, -S-, -S(O)-, -S(O)₂-, and -N(S(O)₂R⁷)-;

 R^6 is selected from the group consisting of hydrogen, formyl, sulfonic- C_1 - ${\rm C}_6\text{-alkyl}, {\rm C}_1\text{-C}_6\text{-alkyl}, {\rm carboxy-C}_1\text{-C}_6\text{-alkyl}, {\rm C}_1\text{-C}_6\text{-alkyl}, {\rm C}_1\text{-C}_6\text{-a$ 10 alkylcarbonyl-C₁-C₆-alkyl, R⁸R⁹-aminocarbonyl-C₁-C₆-alkyl, C₁-C₆alkoxycarbonyl-C₁-C₆-alkylcarbonyl, carboxy-C₁-C₆-alkylcarbonyl, C₁-C₆alkylcarbonyl- C_1 - C_6 -alkylcarbonyl, C_1 - C_6 -alkoxycarbonyl, carboxy, C_1 - C_6 alkylcarbonyl, R^8R^9 -aminocarbonyl, aryl- C_1 - C_6 -alkyl, arylcarbonyl, bis(C_1 - C_6 alkoxy- C_1 - C_6 -alkyl)- C_1 - C_6 -alkyl, C_1 - C_6 -alkyl, halo- C_1 - C_6 -alkyl, 15 trifluoromethyl-C₁-C₆-alkyl, perfluoro-C₁-C₆-alkoxy-C₁-C₆-alkyl, C₁-C₆- ${\it alkoxy-} C_1\text{-}C_6\text{-}{\it alkyl}, C_3\text{-}C_6\text{-}{\it cycloalkyl}, heteroarylcarbonyl, heterocyclylcarbonyl,}$ aryl, heterocyclyl, heteroaryl, C3-C8-cycloalkyl-C1-C6-alkyl, aryloxy-C1-C6-alkyl, heteroaryloxy-C₁-C₆-alkyl, heteroaryl-C₁-C₆-alkoxy-C₁-C₆-alkyl, heteroarylthio- ${\rm C_1\text{-}C_6\text{-}alkyl,\ arylsulfonyl,\ C_1\text{-}C_6\text{-}alkylsulfonyl,\ C_5\text{-}C_6\text{-}heteroarylsulfonyl,}$ 20 carboxy-C₁-C₆-alkyl, aminocarbonyl, C₁-C₆-alkylimino(R¹⁰)carbonyl,

arylimino(R¹⁰)carbonyl, C₅-C₆-heterocyclylimino(R¹⁰)carbonyl, arylthio-C₁-C₆-alkyl, C₁-C₆-alkylthio-C₁-C₆-alkyl, arylthio-C₃-C₆-alkenyl, C₁-C₄-alkylthio-C₃-C₆-alkenyl, C₅-C₆-heteroaryl-C₁-C₆-alkyl, halo-C₁-C₆-alkylcarbonyl, hydroxy-C₁-C₆-alkylcarbonyl, thiol-C₁-C₆-alkylcarbonyl, C₃-C₆-alkenyl, C₃-C₆-alkynyl, aryloxycarbonyl, R⁸R⁹-aminoimino(R¹⁰)methyl, R⁸R⁹-amino-C₁-C₅-alkylcarbonyl, hydroxy-C₁-C₅-alkyl, R⁸R⁹-aminocarbonyl, R⁸R⁹-aminocarbonyl, R⁸R⁹-aminosulfonyl, R⁸R⁹-aminosulfonyl, R⁸R⁹-aminosulfonyl, R⁸R⁹-aminosulfonyl, and R⁸R⁹-amino-C₁-C₆-alkyl;

 $\rm R^7$ is selected from the group consisting of aryl-C $_1$ -C $_6$ -alkyl, aryl, heteroaryl, heterocyclyl, C $_1$ -C $_6$ -alkyl, C $_3$ -C $_6$ -alkynyl, C $_3$ -C $_6$ -alkenyl, carboxy-C $_1$ -C $_6$ -alkyl, and hydroxy-C $_1$ -C $_6$ -alkyl;

as to R^8 and R^9 :

10

hydrogen, hydroxy, C₁-C₆-alkyl, C₁-C₆-alkylcarbonyl, arylcarbonyl, aryl, aryl-C₁-C₆-alkyl, heteroaryl, heteroaryl-C₁-C₆-alkyl, C₂-C₆-alkynyl, C₂-C₆-alkenyl, thiol-C₁-C₆-alkyl, C₁-C₆-alkylthio-C₁-C₆-alkyl, cycloalkyl, cycloalkyl-C₁-C₆-alkyl, heterocyclyl-C₁-C₆-alkyl, C₁-C₆-alkoxy-C₁-C₆-alkyl, aryl-C₁-C₆-alkoxy-C₁-C₆-alkyl, C₁-C₆-alkoxy-C₁-C₆-alkyl, hydroxy-C₁-C₆-alkyl, carboxy-C₁-C₆-alkyl, carboxyaryl-C₁-C₆-alkyl, aminocarbonyl-C₁-C₆-alkyl, aryloxy-C₁-C₆-alkyl, heteroaryloxy-C₁-C₆-alkyl, arylthio-C₁-C₆-alkyl, heteroarylthio-C₁-C₆-alkyl, a sulfoxide of any said thio substituents, a sulfone of any said thio substituents,

5

10

25

trifluoromethyl- C_1 - C_6 -alkyl, halo- C_1 - C_6 -alkyl, alkoxycarbonylamino- C_1 - C_6 -alkyl, and amino- C_1 - C_6 -alkyl, wherein:

the amino- C_1 - C_6 -alkyl nitrogen optionally is substituted with up to 2 substituents independently selected from the group consisting of C_1 - C_6 -alkyl, aryl- C_1 - C_6 -alkyl, cycloalkyl, and C_1 - C_6 -alkylcarbonyl, or

R⁸ and R⁹, together with the atom to which they are bonded, form a 5- to 8-membered heterocyclic or heteroaryl ring containing up to 2 heteroatoms independently selected from the group consisting of nitrogen, oxygen, and sulfur;

only one of R^8 and R^9 is hydroxy;

R¹⁰ is selected from the group consisting of hydrogen, hydroxy, C₁-C₆-alkyl, aryl, aryl-C₁-C₆-alkyl, heteroaryl, heteroaryl-C₁-C₆-alkyl, C₂-C₆-alkynyl, C₂-C₆-alkenyl, thiol-C₁-C₆-alkyl, C₁-C₆-alkylthio-C₁-C₆-alkyl, cycloalkyl, cycloalkyl-C₁-C₆-alkyl, heterocyclyl-C₁-C₆-alkyl, C₁-C₆-alkoxy-C₁-C₆-alkyl, aryl-C₁-C₆-alkoxy-C₁-C₆-alkyl, C₁-C₆-alkoxy-C₁-C₆-alkyl, hydroxy-C₁-C₆-alkyl, carboxy-C₁-C₆-alkyl, carboxyaryl-C₁-C₆-alkyl, aminocarbonyl-C₁-C₆-alkyl, aryloxy-C₁-C₆-alkyl, heteroaryloxy-C₁-C₆-alkyl, arylthio-C₁-C₆-alkyl, heteroarylthio-C₁-C₆-alkyl, a sulfoxide of any said thio substituents, a sulfone of any said thio substituents, trifluoromethyl-C₁-C₆-alkyl, halo-C₁-C₆-alkyl, alkoxycarbonylamino-C₁-C₆-alkyl, and amino-C₁-C₆-alkyl, wherein:

the amino- C_1 - C_6 -alkyl nitrogen optionally is substituted with up to 2 substituents independently selected from the group consisting of C_1 - C_6 -alkyl, aryl- C_1 - C_6 -alkyl, cycloalkyl, and C_1 - C_6 -alkylcarbonyl;

5

10

E is selected from the group consisting of a bond, -C(O)-, and -S-; Y is selected from the group consisting of hydrogen, alkyl, alkoxy, haloalkyl, aryl, arylalkyl, cycloalkyl, heteroaryl, hydroxy, aryloxy, arylalkoxy, heteroaryloxy, heteroarylalkyl, perfluoroalkoxy, perfluoroalkylthio, trifluoromethylalkyl, alkenyl, heterocyclyl, cycloalkyl, trifluoromethyl, alkoxycarbonyl, and aminoalkyl, wherein:

the aryl, heteroaryl, arylalkyl, or heterocyclyl optionally is substituted with up to 2 substituents independently selected from the group consisting of alkylcarbonyl, halo, nitro, arylalkyl, aryl, alkoxy, trifluoroalkyl, trifluoroalkoxy, and amino, wherein:

the amino nitrogen optionally is substituted with up to 2 substituents independently selected from the group consisting of alkyl and arylalkyl; and

R is selected from the group consisting of hydrogen, cyano, perfluoroalkyl, 15 trifluoromethoxy, trifluoromethylthio, haloalkyl, trifluoromethylalkyl, arylalkoxycarbonyl, aryloxycarbonyl, hydroxy, halo, alkyl, alkoxy, nitro, thiol, hydroxycarbonyl, aryloxy, arylthio, arylalkyl, aryl, arylcarbonylamino, heteroaryloxy, heteroarylthio, heteroarylalkyl, cycloalkyl, heterocylyloxy, heterocylylthio, heterocylylamino, cycloalkyloxy, cycloalkylthio, heteroarylalkoxy, 20 heteroarylalkylthio, arylalkoxy, arylalkylthio, arylalkylamino, heterocylyl, heteroaryl, arylazo, hydroxycarbonylalkoxy, alkoxycarbonylalkoxy, alkylcarbonyl, arylcarbonyl, arylalkylcarbonyl, alkylcarbonyloxy, arylalkylcarbonyloxy, hydroxyalkyl, hydroxyalkoxy, alkylthio, alkoxyalkylthio, alkoxycarbonyl, aryloxyalkoxyaryl, arylthioalkylthioaryl, aryloxyalkylthioaryl, arylthioalkoxyaryl, 25 hydroxycarbonylalkoxy, hydroxycarbonylalkylthio, alkoxycarbonylalkoxy, alkoxycarbonylalkylthio, amino, aminocarbonyl, and aminoalkyl, wherein:

the amino nitrogen optionally is substituted with:

up two substituents that are independently selected from the group consisting of alkyl, aryl, heteroaryl, arylalkyl,

cycloalkyl, arylalkoxycarbonyl, alkoxycarbonyl, arylcarbonyl, arylalkylcarbonyl, heteroarylcarbonyl, heteroarylalkylcarbonyl, and alkylcarbonyl, or two substituents such that the two substituents, 5 together with the amino nitrogen, form a 5- to 8-member heterocyclyl or heteroaryl ring that: contains from zero to two additional heteroatoms that are independently selected from the group consisting of nitrogen, oxygen, and sulfur, 10 optionally is substituted with up to two substituents independently selected from the group consisting of aryl, alkyl, heteroaryl, arylalkyl, heteroarylalkyl, hydroxy, alkoxy, alkylcarbonyl, cycloalkyl, heterocylylalkyl, alkoxycarbonyl, 15 hydroxyalkyl, trifluoromethyl, benzofused heterocylylalkyl, hydroxyalkoxyalkyl, arylalkoxycarbonyl, hydroxycarbonyl, aryloxycarbonyl, benzofused heterocylylalkoxy, benzofused cycloalkylcarbonyl, 20 heterocyclylalkylcarbonyl, and cycloalkylcarbonyl, the aminocarbonyl nitrogen is: unsubstituted, the reacted amine of an amino acid, substituted with one or two substituents 25 independently selected from the group consisting of alkyl, hydroxyalkyl, hydroxyheteroarylalkyl, cycloalkyl, arvlalkyl, trifluoromethylalkyl, heterocylylalkyl, benzofused heterocylylalkyl, benzofused cycloalkyl, and N,Ndialkylsubstituted alkylamino-alkyl, or

	substituted with two substituents such that the two
	substituents, together with the aminocarbonyl nitrogen, form
	a 5- to 8-member heterocyclyl or heteroaryl ring that
	optionally is substituted with up to two substituents
5	independently selected from the group consisting of alkyl,
	alkoxycarbonyl, nitro, heterocylylalkyl, hydroxy,
	hydroxycarbonyl, aryl, arylalkyl, heteroaralkyl, and amino,
	wherein the amino nitrogen optionally is substituted with:
	two substituents independently selected from
10	the group consisting of alkyl, aryl, and heteroaryl; or
	two substituents such that the two
	substituents, together with the amino nitrogen, form
	a 5- to 8-member heterocyclyl or heteroaryl ring, and
	the aminoalkyl nitrogen optionally is substituted with:
15	up to two substituents independently selected from
	the group consisting of alkyl, aryl, arylalkyl, cycloalkyl,
	arylalkoxycarbonyl, alkoxycarbonyl, and alkylcarbonyl, or
	two substituents such that the two substituents,
	together with the aminoalkyl nitrogen, form a 5- to 8-
20	member heterocyclyl or heteroaryl ring.

2. A compound or salt according to claim 1, wherein R is halo.

3. A compound or salt according to claim 1, wherein the compound corresponds in structure to Formula XA:

5

- 4. A compound or salt according to claim 3, wherein the salt is a pharmaceutically acceptable salt.
- 5. A compound or salt according to claim 3, wherein Y is selected from the group consisting of aryl, arylalkyl, cycloalkyl, heteroaryl, aryloxy, arylalkoxy, heteroaryloxy, heteroarylalkyl, heterocyclyl, and cycloalkyl, wherein:

the aryl, heteroaryl, arylalkyl, or heterocyclyl optionally is substituted with up to 2 substituents independently selected from the group consisting of alkylcarbonyl, halo, nitro, arylalkyl, aryl, alkoxy, trifluoroalkyl, trifluoroalkoxy, and amino, wherein:

the amino nitrogen optionally is substituted with up to 2 substituents independently selected from the group consisting of alkyl and arylalkyl.

20

- 6. A compound or salt according to claim 3, wherein E is a bond.
- 7. A compound or salt according to claim 3, wherein E is -C(O)-.
- 25 8. A compound or salt according to claim 3, wherein E is -S-.

5

10

20

- 9. A compound or salt according to claim 3, wherein Z is -O-.
- 10. A compound or salt according to claim 3, wherein Z is $-N(R^6)$ -.

11. A compound or salt according to claim 10, wherein R^6 is selected from the group consisting of C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl, C_3 - C_6 -cycloalkyl, C_3 - C_6 -alkyl, C_1 - C_6 -alkyl, C_1 - C_6 -alkylsulfonyl, C_3 - C_6 -alkenyl, and C_3 - C_6 -alkynyl..

12. A compound or salt according to claim 3, wherein R⁶ is selected from the group consisting of perfluoro-C₁-C₆-alkyl.

13. A compound or salt according to claim 3, wherein R^8 , R^9 , or R^{10} is perfluoro- C_1 - C_6 -alkyl.

14. A compound or a salt thereof, wherein: the compound corresponds in structure to Formula X:

X;

E is selected from the group consisting of a bond, -C(O)-, and -S-;

Z is selected from the group consisting of -C(O)-, -N(R⁶)-, -O-, -S-, and
-S(O)₂-;

R⁶ is selected from the group consisting of hydrogen, arylalkoxycarbonyl, alkylcarbonyl, alkyl, alkoxyalkyl, cycloalkyl, heteroarylcarbonyl, heteroaryl,

cycloalkylalkyl, alkylsulfonyl, haloalkylcarbonyl, alkenyl, alkynyl, and R^8R^9 -aminoalkylcarbonyl;

as to R⁸ and R⁹:

R⁸ and R⁹ are independently selected from the group consisting of hydrogen, alkyl, alkoxy, hydroxyalkyl, alkoxyalkyl, hydroxyalkoxyalkyl, heteroarylalkyl, cycloalkylalkyl, heterocyclylcarbonyl, haloalkyl, and aminoalkyl, wherein:

the aminoalkyl nitrogen optionally is substituted with up to two substituents independently selected from the group consisting of alkyl, or

R⁸ and R⁹, together with the atom to which they are bonded, form a 5- to 8-membered heterocyclyl or heteroaryl containing up to 3 heteroatoms independently selected from the group consisting of nitrogen, oxygen, and sulfur, wherein:

any such heterocyclyl optionally is substituted with one or more substituents independently selected from the group consisting of hydroxy, keto, carboxy, alkoxyalkyl, hydroxyalkyl, hydroxyalkyl, hydroxyalkoxyalkyl, alkoxycarbonylalkyl, heterocyclylalkyl, alkoxycarbonyl, and aminoalkyl, wherein:

the aminoalkyl nitrogen optionally is substituted with up to two substituents independently selected from the group consisting of alkyl; and

Y is selected from the group consisting of cycloalkyl, 2,3-dihydroindolyl, heterocyclyl, aryl, heteroaryl, arylalkyl, and heteroarylalkyl, wherein:

any such substituent optionally is substituted with one or more optionally substituted substituents independently selected from the group consisting of halogen, hydroxy, keto, alkyl, haloalkyl, hydroxyalkyl, alkenyl, alkoxy, alkylcarbonyl, haloalkoxy, alkylthio, alkoxyalkyl, alkoxycarbonylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkyloxy,

10

5

15

20

cycloalkylalkoxy, cycloalkylalkoxyalkyl, aryl, arylalkyl, arylalkoxy, heterocyclyl, heterocyclylalkyl, heteroaryl, heteroarylcarbonyl, heterocyclylcarbonylalkyl, alkylsulfonyl, amino, aminoalkyl, and aminocarbonyl, wherein:

5

any such substituent optionally is substituted with one or more substituents independently selected from the group consisting of halogen, nitro, alkyl, haloalkyl, alkoxy, haloalkoxy, and alkylcarbonyl, and

10

the nitrogen of the amino, aminoalkyl, or aminocarbonyl optionally is substituted with up to two substituents independently selected from the group consisting of alkyl and cycloalkylalkyl; and R is selected from the group consisting of hydrogen and halogen.

15. A compound or salt according to claim 14, wherein the compound15 corresponds in structure to Formula XA:

- XA.
- 16. A compound or salt according to claim 15, wherein the salt is a20 pharmaceutically acceptable salt.
 - 17. A compound or salt according to claim 15, wherein Z is -O-.
 - 18. A compound or salt according to claim 15, wherein Z is $-N(R^6)$ -.

- 19. A compound or salt according to claim 18, wherein R⁶ is C₁-C₆-alkyl.
- 20. A compound or salt according to claim 18, wherein R^6 is C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl.

5

- 21. A compound or salt according to claim 18, wherein R^6 is C_3 - C_6 -cycloalkyl.
- 22. A compound or salt according to claim 18, wherein R^6 is C_3 - C_8 10 cycloalkyl- C_1 - C_6 -alkyl.
 - 23. A compound or salt according to claim 18, wherein R^6 is C_3 - C_6 -alkenyl.
- 15 24. A compound or salt according to claim 18, wherein R^6 is C_3 - C_6 -alkynyl.
 - 25. A compound or salt according to claim 18, wherein R^6 is C_1 - C_6 -alkylsulfonyl.

- 26. A compound or salt according to claim 15, wherein E is -C(O)-.
- 27. A compound or salt according to claim 26, wherein Z is -O-.
- 28. A compound or salt according to claim 26, wherein Z is $-N(R^6)$ -.
 - 29. A compound or salt according to claim 26, wherein:

 R^6 is selected from the group consisting of hydrogen, aryl- C_1 - C_6 -alkoxycarbonyl, C_1 - C_6 -alkoxycarbonyl, C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl, C_3 - C_6 -cycloalkyl, heteroaryl, heteroarylcarbonyl, halo- C_1 - C_6 -alkylcarbonyl, and $R^8R^9\text{-amino-}C_1$ - C_6 -alkylcarbonyl;

as to R⁸ and R⁹:

 R^8 and R^9 are independently selected from the group consisting of hydrogen, C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, hydroxy- C_1 - C_6 -alkyl, C_1 - C_6 -alkyl, heteroaryl- C_1 - C_6 -alkyl, C_3 - C_6 -cycloalkyl- C_1 - C_6 -alkyl, heterocyclylcarbonyl, halo- C_1 - C_6 -alkyl, hydroxy- C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl, and amino- C_1 - C_6 -alkyl, wherein:

the amino- C_1 - C_6 -alkyl nitrogen optionally is substituted with up to two substituents independently selected from the group consisting of C_1 - C_6 -alkyl, or

R⁸ and R⁹, together with the atom to which they are bonded, form a heterocyclyl or heteroaryl containing up to 3 heteroatoms independently selected from the group consisting of nitrogen, oxygen, and sulfur, wherein:

any such heterocyclyl optionally is substituted with one or more substituents independently selected from the group consisting of hydroxy, keto, carboxy, hydroxy- C_1 - C_6 -alkyl, hydroxy- C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl, C_1 - C_6 -alkoxycarbonyl- C_1 - C_6 -alkyl, heterocyclyl- C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy-alkoxy- C_1 - C_6 -alkyl, and amino- C_1 - C_6 -alkyl, wherein:

the amino- C_1 - C_6 -alkyl nitrogen optionally is substituted with up to 2 substituents independently selected from the group consisting of C_1 - C_6 -alkyl; and

10

5

15

20

5

10

15

Y is selected from the group consisting of heterocyclyl, aryl, heteroaryl, and arylmethyl, wherein:

any such substituent optionally is substituted with one or more substituents independently selected from the group consisting of halogen, hydroxy, C_1 - C_6 -alkyl, halo- C_1 - C_6 -alkyl, hydroxy- C_1 - C_6 -alkyl, C_2 - C_6 -alkenyl, C_1 - C_6 -alkoxy, C_1 - C_6 -alkylcarbonyl, halo- C_1 - C_6 -alkoxy, C_1 - C_6 -alkylthio, C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy-arbonyl- C_1 - C_6 -alkyl, aryl- C_1 - C_6 -alkyl, aryl- C_1 - C_6 -alkoxy, heterocyclyl, heterocyclyl- C_1 - C_6 -alkyl, heteroaryl, heteroarylcarbonyl,

heterocyclylcarbonyl- C_1 - C_6 -alkyl, amino, and amino- C_1 - C_6 -alkyl, wherein: any such substituent optionally is substituted with one or more substituents independently selected from the group consisting of halogen, nitro, C_1 - C_6 -alkyl, halo- C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, and C_1 - C_6 -alkylcarbonyl, and

the nitrogen of the amino or amino- C_1 - C_6 -alkyl optionally is substituted with up to two substituents independently selected from the group consisting of C_1 - C_6 -alkyl and C_3 - C_6 -cycloalkyl- C_1 - C_6 -alkyl.

30. A compound or salt according to claim 29, wherein Y is phenyl optionally substituted with one or more substituents independently selected from the group consisting of halogen, hydroxy, C₁-C₆-alkyl, halo-C₁-C₆-alkyl, hydroxy-C₁-C₆-alkyl, C₂-C₆-alkenyl, C₁-C₆-alkoxy, C₁-C₆-alkylcarbonyl, halo-C₁-C₆-alkoxy, C₁-C₆-alkylthio, C₁-C₆-alkoxy-C₁-C₆-alkyl, C₁-C₆-alkoxycarbonyl-C₁-C₆-alkyl, aryl, aryl-C₁-C₆-alkyl, aryl-C₁-C₆-alkoxy, heterocyclyl, heterocyclyl-C₁-C₆-alkyl, heteroaryl, heteroarylcarbonyl, heterocyclylcarbonyl-C₁-C₆-alkyl, amino, and amino-C₁-C₆-alkyl, wherein:

any such substituent optionally is substituted with one or more substituents independently selected from the group consisting of halogen,

nitro, C_1 - C_6 -alkyl, halo- C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, and C_1 - C_6 -alkylcarbonyl, and

the nitrogen of the amino or amino- C_1 - C_6 -alkyl optionally is substituted with up to two substituents independently selected from the group consisting of C_1 - C_6 -alkyl and C_3 - C_6 -cycloalkyl- C_1 - C_6 -alkyl.

5

10

31. A compound or salt according to claim 29, wherein Y is thienyl optionally substituted with one or more substituents independently selected from the group consisting of halogen, hydroxy, C₁-C₆-alkyl, halo-C₁-C₆-alkyl, hydroxy-C₁-C₆-alkyl, C₂-C₆-alkenyl, C₁-C₆-alkoxy, C₁-C₆-alkylcarbonyl, halo-C₁-C₆-alkoxy, C₁-C₆-alkylthio, C₁-C₆-alkoxy-C₁-C₆-alkyl, C₁-C₆-alkoxycarbonyl-C₁-C₆-alkyl, aryl, aryl-C₁-C₆-alkyl, aryl-C₁-C₆-alkoxy, heterocyclyl, heterocyclyl-C₁-C₆-alkyl, heteroaryl, heteroarylcarbonyl, heterocyclylcarbonyl-C₁-C₆-alkyl, amino, and amino-C₁-C₆-alkyl, wherein:

15

any such substituent optionally is substituted with one or more substituents independently selected from the group consisting of halogen, nitro, C_1 - C_6 -alkyl, halo- C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, and C_1 - C_6 -alkylcarbonyl, and

20

the nitrogen of the amino or amino- C_1 - C_6 -alkyl optionally is substituted with up to two substituents independently selected from the group consisting of C_1 - C_6 -alkyl and C_3 - C_6 -cycloalkyl- C_1 - C_6 -alkyl.

- 32. A compound or salt according to claim 29, wherein Z is -O-.
- 25 33. A compound or salt according to claim 29, wherein Z is $-N(R^6)$ -.
 - 34. A compound or salt according to claim 26, wherein:

 R^6 is selected from the group consisting of C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl, C_3 - C_6 -cycloalkyl, C_3 - C_6 -alkyl, C_3 - C_6 -alkyl, C_3 - C_6 -alkyl, and C_1 - C_6 -alkylsulfonyl; and

Y is selected from the group consisting of aryl, heteroaryl, arylmethyl, and heteroarylmethyl, wherein:

any such substituent optionally is substituted with one or more substituents independently selected from the group consisting of halogen, $C_1 - C_6 - \text{alkyl}, \, \text{hydroxy-} \\ C_1 - C_6 - \text{alkyl}, \, \text{hydroxy-} \\ C_1 - C_6 - \text{alkyl}, \, \text{C}_2 - \text{C}_6 - \text{alkenyl}, \, \text{C}_1 - \text{C}_6 - \text{alkoxy}, \, \text{C}_1 - \text{C}_6 - \text{alkyl}, \, \text{C}_3 - \text{C}_6 - \text{cycloalkyl-} \\ C_1 - C_6 - \text{alkyl}, \, \text{C}_3 - \text{C}_6 - \text{cycloalkyl-} \\ C_1 - C_6 - \text{alkoxy-} \\ C_1 - C_6 - \text{alkoxy-} \\ C_1 - C_6 - \text{alkoxy-} \\ C_1 - C_6 - \text{alkyl}, \, \text{amino, and amino-} \\ C_1 - C_6 - \text{alkyl}, \, \text{wherein:}$

the nitrogen of the amino or amino- C_1 - C_6 -alkyl optionally is substituted with up to two substituents independently selected from the group consisting of C_1 - C_6 -alkyl.

15

20

10

5

35. A compound or salt according to claim 34, wherein Y is phenyl or phenylmethyl, wherein:

the phenyl or phenylmethyl optionally is substituted with one or more substituents independently selected from the group consisting of halogen, C_1 - C_6 -alkyl, hydroxy- C_1 - C_6 -alkyl, C_2 - C_6 -alkenyl, C_1 - C_6 -alkoxy, C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl, C_3 - C_6 -cycloalkyl- C_1 - C_6 -alkyl, C_3 - C_6 -cycloalkyl- C_1 - C_6 -alkoxy, C_3 - C_6 -cycloalkyl- C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl, heterocyclyl- C_1 - C_6 -alkyl, amino, and amino- C_1 - C_6 -alkyl, wherein:

25

the nitrogen of the amino or amino- C_1 - C_6 -alkyl optionally is substituted with up to two substituents independently selected from the group consisting of C_1 - C_6 -alkyl.

- 36. A compound or salt according to claim 35, wherein Z is -N(R⁶)-.
- 37. A compound or salt according to claim 36, wherein the compound corresponds in structure to the following formula:

38. A compound or salt according to claim 36, wherein the compound corresponds in structure to the following formula:

10

5

39. A compound or salt according to claim 36, wherein the compound corresponds in structure to the following formula:

15

40. A compound or salt according to claim 36, wherein the compound

10

15

corresponds in structure to the following formula:

41. A compound or salt according to claim 34, wherein Y is thienyl or thienylmethyl, wherein:

the thienyl or thienylmethyl optionally is substituted with one or more substituents independently selected from the group consisting of halogen, C_1 - C_6 -alkyl, hydroxy- C_1 - C_6 -alkyl, C_2 - C_6 -alkenyl, C_1 - C_6 -alkoxy, C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl, C_3 - C_6 -cycloalkyl- C_1 - C_6 -alkyl, C_3 - C_6 -cycloalkyl- C_1 - C_6 -alkoxy, C_3 - C_6 -cycloalkyl- C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl, heterocyclyl- C_1 - C_6 -alkyl, amino, and amino- C_1 - C_6 -alkyl, wherein:

the nitrogen of the amino or amino- C_1 - C_6 -alkyl optionally is substituted with up to two substituents independently selected from the group consisting of C_1 - C_6 -alkyl.

- 42. A compound or salt according to claim 41, wherein Z is $-N(R^6)$ -.
- 43. A compound or salt according to claim 42, wherein the compound corresponds in structure to the following formula:

44. A compound or salt according to claim 42, wherein the compound corresponds in structure to the following formula:

5

- 45. A compound or salt according to claim 34, wherein Z is -O-.
- 46. A compound or salt according to claim 34, wherein Z is -N(R⁶)-.
- 10 47. A compound or salt according to claim 15, wherein E is a bond.
 - 48. A compound or salt according to claim 47, wherein Z is -O-.
 - 49. A compound or salt according to claim 47, wherein Z is $-N(R^6)$ -.

15

50. A compound or salt according to claim 47, wherein:

 $\rm R^6$ is selected from the group consisting of hydrogen, aryl-C $_1$ -C $_6$ -alkoxycarbonyl, C $_1$ -C $_6$ -alkoxycarbonyl, C $_1$ -C $_6$ -alkoxy-C $_1$ -C $_6$ -alkoxy-C $_1$ -C $_6$ -alkyl, C $_3$ -C $_6$ -cycloalkyl, heteroaryl, heteroarylcarbonyl, halo-C $_1$ -C $_6$ -alkylcarbonyl, and

20 R^8R^9 -amino- C_1 - C_6 -alkylcarbonyl;

as to R⁸ and R⁹:

 $\rm R^8$ and $\rm R^9$ are independently selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_1-C_6-alkoxy, hydroxy-C_1-C_6-alkyl, C_1-C_6-

5

10

15

alkoxy- C_1 - C_6 -alkyl, heteroaryl- C_1 - C_6 -alkyl, C_3 - C_6 -cycloalkyl- C_1 - C_6 -alkyl, heterocyclylcarbonyl, halo- C_1 - C_6 -alkyl, hydroxy- C_1 - C_6 -alkyl, and amino- C_1 - C_6 -alkyl, wherein:

the amino- C_1 - C_6 -alkyl nitrogen optionally is substituted with up to two substituents independently selected from the group consisting of C_1 - C_6 -alkyl, or

R⁸ and R⁹, together with the atom to which they are bonded, form a heterocyclyl or heteroaryl containing up to 3 heteroatoms independently selected from the group consisting of nitrogen, oxygen, and sulfur, wherein:

any such heterocyclyl optionally is substituted with one or more substituents independently selected from the group consisting of hydroxy, keto, carboxy, hydroxy- C_1 - C_6 -alkyl, hydroxy- C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl, C_1 - C_6 -alkoxycarbonyl- C_1 - C_6 -alkyl, heterocyclyl- C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy-alkoxy- C_1 - C_6 -alkyl, and amino- C_1 - C_6 -alkyl, wherein:

the amino- C_1 - C_6 -alkyl nitrogen optionally is substituted with up to 2 substituents independently selected from the group consisting of C_1 - C_6 -alkyl;

Y is selected from the group consisting of aryl, 2,3-dihydroindolyl, heterocyclyl, and heteroaryl, wherein:

any such substituent optionally is substituted with one or more substituents independently selected from the group consisting of halogen, keto, hydroxy, C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, halo- C_1 - C_6 -alkyl, halo- C_1 - C_6 -alkoxy, aryl, aminocarbonyl, and C_1 - C_6 -alkylsulfonyl, wherein:

5

10

15

any such substituent optionally is substituted with one or more substituents independently selected from the group consisting of halogen, halo- C_1 - C_6 -alkyl, and halo- C_1 - C_6 -alkoxy, and

the nitrogen of the aminocarbonyl optionally is substituted with up to 2 substituents independently selected from the group consisting of C_1 - C_6 -alkyl.

51. A compound or salt according to claim 50, wherein Y is phenyl optionally substituted with one or more substituents independently selected from the group consisting of halogen, keto, hydroxy, C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, halo- C_1 - C_6 -alkyl, halo- C_1 - C_6 -alkoxy, aryl, aminocarbonyl, and C_1 - C_6 -alkylsulfonyl, wherein:

any such substituent optionally is substituted with one or more substituents independently selected from the group consisting of halogen, halo- C_1 - C_6 -alkyl, and halo- C_1 - C_6 -alkoxy, and

the nitrogen of the aminocarbonyl optionally is substituted with up to 2 substituents independently selected from the group consisting of C_1 - C_6 -alkyl.

52. A compound or salt according to claim 47, wherein:

 $\rm R^6$ is selected from the group consisting of C $_1$ -C $_6$ -alkyl, C $_1$ -C $_6$ -alkoxy-C $_1$ -C $_6$ -alkyl, C $_3$ -C $_6$ -cycloalkyl, C $_3$ -C $_6$ -alkyl, C $_3$ -C $_6$ -alkyl, C $_3$ -C $_6$ -alkyl, and C $_1$ -C $_6$ -alkylsulfonyl; and

Y is selected from the group consisting of heteroaryl, aryl, and heterocyclyl, wherein:

5

10

15

any such substituent optionally is substituted with one or more substituents independently selected from the group consisting of halogen, $C_1 - C_6 - \text{alkyl}, \ C_1 - C_6 - \text{alkoxy}, \ \text{and aryl}, \ \text{wherein:}$

the aryl optionally is substituted with one or more substituents independently selected from the group consisting of halo- C_1 - C_6 -alkyl.

53. A compound or salt according to claim 50, wherein Y is phenyl optionally substituted with one or more substituents independently selected from the group consisting of halogen, C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, and aryl, wherein:

the aryl optionally is substituted with one or more substituents independently selected from the group consisting of halo- C_1 - C_6 -alkyl.

- 54. A compound or salt according to claim 15, wherein E is -S-.
- 55. A compound or salt according to claim 54, wherein Z is -O-.
- 56. A compound or salt according to claim 54, wherein Z is $-N(R^6)$ -.
- 20 57. A compound or salt according to claim 54, wherein:

 R^6 is selected from the group consisting of hydrogen, aryl- C_1 - C_6 -alkoxycarbonyl, C_1 - C_6 -alkoxycarbonyl, C_1 - C_6 -alkoxycarbonyl, C_1 - C_6 -alkoxy- C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl, heteroaryl, heteroarylcarbonyl, halo- C_1 - C_6 -alkylcarbonyl, and R^8R^9 -amino- C_1 - C_6 -alkylcarbonyl;

25 as to R^8 and R^9 :

 $\rm R^8$ and $\rm R^9$ are independently selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_1-C_6-alkoxy, hydroxy-C_1-C_6-alkyl, C_1-C_6-

alkoxy- C_1 - C_6 -alkyl, heteroaryl- C_1 - C_6 -alkyl, C_3 - C_6 -cycloalkyl- C_1 - C_6 -alkyl, heterocyclylcarbonyl, halo- C_1 - C_6 -alkyl, hydroxy- C_1 - C_6 -alkyl, and amino- C_1 - C_6 -alkyl, wherein:

5

the amino- C_1 - C_6 -alkyl nitrogen optionally is substituted with up to two substituents independently selected from the group consisting of C_1 - C_6 -alkyl, or

R⁸ and R⁹, together with the atom to which they are bonded, form a heterocyclyl or heteroaryl containing up to 3 heteroatoms independently selected from the group consisting of nitrogen, oxygen, and sulfur, wherein:

10

any such heterocyclyl optionally is substituted with one or more substituents independently selected from the group consisting of hydroxy, keto, carboxy, hydroxy- C_1 - C_6 -alkyl, hydroxy- C_1 - C_6 -alkoxy- C_1 - C_6 -alkyl, C_1 - C_6 -alkoxycarbonyl- C_1 - C_6 -alkyl, heterocyclyl- C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy-alkoxy- C_1 - C_6 -alkyl, and amino- C_1 - C_6 -alkyl, wherein:

15

the amino- C_1 - C_6 -alkyl nitrogen optionally is substituted with up to 2 substituents independently selected from the group consisting of C_1 - C_6 -alkyl;

Y is selected from the group consisting of cycloalkyl, aryl, arylmethyl, and heteroaryl, wherein:

any such substituent optionally is substituted with one or more substituents independently selected from the group consisting of halogen, halo- C_1 - C_6 -alkyl, and halo- C_1 - C_6 -alkoxy.

58. A compound or salt according to claim 54, wherein:

 $\rm R^6$ is selected from the group consisting of C $_1$ -C $_6$ -alkyl, C $_1$ -C $_6$ -alkoxy-C $_1$ -C $_6$ -alkyl, C $_3$ -C $_6$ -cycloalkyl, C $_3$ -C $_6$ -alkyl, C $_3$ -C $_6$ -alkyl, C $_3$ -C $_6$ -alkyl, and C $_1$ -C $_6$ -alkylsulfonyl; and

Y is heteroaryl.

5

10

15

59. A method for preventing or treating a condition associated with matrix metalloprotease activity in a host animal, wherein:

the method comprises administering a compound recited in claim 1 (or a pharmaceutically acceptable salt thereof) to the host animal in an amount effective to prevent or treat the condition; and

the condition is selected from the group consisting of tissue destruction, a fibrotic disease, matrix weakening, defective injury repair, a cardiovascular disease, a pulmonary disease, a kidney disease, and a central nervous system disease.

- 60. A method according to claim 59, wherein the compound corresponds in structure to a compound recited in claim 3.
- 20 61. A method according to claim 59, wherein the condition is selected from the group consisting of osteoarthritis, rheumatoid arthritis, septic arthritis, tumor invasion, tumor metastasis, tumor angiogenesis, a decubitis ulcer, a gastric ulcer, a corneal ulcer, periodontal disease, liver cirrhosis, fibrotic lung disease, otosclerosis, atherosclerosis, multiple sclerosis, dilated cardiomyopathy, epidermolysis bullosa, aortic aneurysm, weak injury repair, an adhesion, scarring, congestive heart failure, coronary thrombosis, emphysema, proteinuria, and Alzheimer's disease.

- 62. A method according to claim 59, wherein the condition is selected from the group consisting of rheumatoid arthritis, osteoarthritis, septic arthritis, corneal ulceration, epidermal ulceration, gastric ulceration, tumor metastasis, tumor invasion, tumor angiogenesis, periodontal disease, proteinuria, Alzheimer's disease, coronary thrombosis, bone disease, and defective injury repair.
- 63. A method according to claim 61, wherein the condition comprises atherosclerosis.
- 64. A method for preventing or treating a condition associated with matrix metalloprotease activity in a host animal, the method comprising administering a compound recited in claim 1 (or a pharmaceutically-acceptable salt thereof) to the host animal in an amount effective to inhibit matrix metalloprotease-2, matrix metalloprotease-9, and/or matrix metalloprotease-13.

15

25

- 65. A method according to claim 64, wherein the compound corresponds in structure to a compound recited in claim 3.
- 66. A method according to claim 64, wherein matrix metalloprotease-13 is inhibited selectively over both matrix metalloprotease-1 and matrix metalloprotease-14.
 - 67. A method according to claim 64, wherein matrix metalloprotease-9 is inhibited selectively over both matrix metalloprotease-1 and matrix metalloprotease-14.
 - 68. A method according to claim 64, wherein matrix metalloprotease-9 is inhibited selectively over both matrix metalloprotease-1 and matrix metalloprotease-14.

69. A method for preventing or treating a condition associated with matrix metalloprotease activity in a host animal, wherein:

the method comprises administering a compound recited in claim 1 (or a pharmaceutically-acceptable salt thereof) to the host animal in an amount effective to prevent or treat the condition, and

the condition is associated with TNF- α convertase activity.

- 70. A method according to claim 69, wherein the compound corresponds in structure to a compound recited in claim 3.
 - 71. A method according to claim 69, wherein the condition is selected from the group consisting of inflammation, a pulmonary disease, a cardiovascular disease, an autoimmune disease, graft rejection, a fibrotic disease, cancer, an infectious disease, fever, psoriasis, hemorrhage, coagulation, radiation damage, acute-phase responses of shock and sepsis, anorexia, and cachexia.
 - 72. A method for preventing or treating a condition associated with aggrecanase activity in a host animal, wherein the method comprises administering a compound of claim 1 (or a pharmaceutically-acceptable salt thereof) to the host animal in an amount effective to prevent or treat the condition.
 - 73. A method according to claim 72, wherein the compound corresponds in structure to a compound recited in claim 3.
 - 74. A method according to claim 72, wherein the condition comprises an inflammation condition.

25

15

20

15

25

- 75. A method according to claim 74, wherein the condition is selected from the group consisting of osteoarthritis, rheumatoid arthritis, joint injury, reactive arthritis, acute pyrophosphate arthritis, and psoriatic arthritis.
- 5 76. A method according to claim 72, wherein the condition comprises cancer.
- 77. A method according to claim 72, wherein the method further comprises administering the compound or salt thereof to prevent or treat a condition associated with matrix metalloprotease activity.
 - 78. A method according to claim 77, wherein the condition associated with matrix metalloprotease activity comprises a condition associated with matrix metalloprotease-2, matrix metalloprotease-9, and/or matrix metalloprotease-13 activity.
 - 79. A method for preventing or treating a condition associated with matrix metalloprotease activity in a host animal, wherein:

the method comprises administering a compound recited in claim 14 (or a pharmaceutically acceptable salt thereof) to the host animal in an amount effective to prevent or treat the condition; and

the condition is selected from the group consisting of tissue destruction, a fibrotic disease, matrix weakening, defective injury repair, a cardiovascular disease, a pulmonary disease, a kidney disease, and a central nervous system disease.

80. A method according to claim 79, wherein the compound corresponds in structure to a compound recited in claim 15.

- 81. A method according to claim 79, wherein the compound corresponds in structure to a compound recited in claim 29.
- 82. A method according to claim 79, wherein the compound corresponds in structure to a compound recited in claim 34.
 - 83. A method according to claim 79, wherein the condition is selected from the group consisting of osteoarthritis, rheumatoid arthritis, septic arthritis, tumor invasion, tumor metastasis, tumor angiogenesis, a decubitis ulcer, a gastric ulcer, a corneal ulcer, periodontal disease, liver cirrhosis, fibrotic lung disease, otosclerosis, atherosclerosis, multiple sclerosis, dilated cardiomyopathy, epidermolysis bullosa, aortic aneurysm, weak injury repair, an adhesion, scarring, congestive heart failure, coronary thrombosis, emphysema, proteinuria, and Alzheimer's disease.

15

20

25

- 84. A method for preventing or treating a condition associated with matrix metalloprotease activity in a host animal, the method comprising administering a compound recited in claim 14 (or a pharmaceutically-acceptable salt thereof) to the host animal in an amount effective to inhibit matrix metalloprotease-2, matrix metalloprotease-9, and/or matrix metalloprotease-13.
- 85. A method according to claim 84, wherein the compound corresponds in structure to a compound recited in claim 15.
- 86. A method according to claim 84, wherein the compound corresponds in structure to a compound recited in claim 29.
 - 87. A method according to claim 84, wherein the compound corresponds in structure to a compound recited in claim 34.

metalloprotease-14.

88. A method according to claim 84, wherein matrix metalloprotease-13 is inhibited selectively over both matrix metalloprotease-1 and matrix metalloprotease-14.

5

- 89. A method according to claim 84, wherein matrix metalloprotease-9 is inhibited selectively over both matrix metalloprotease-1 and matrix metalloprotease-14.
- 90. A method according to claim 84, wherein matrix metalloprotease-9 is inhibited selectively over both matrix metalloprotease-1 and matrix
 - 91. A method for preventing or treating a condition associated with matrix metalloprotease activity in a host animal, wherein:

the method comprises administering a compound recited in claim 14 (or a pharmaceutically-acceptable salt thereof) to the host animal in an amount effective to prevent or treat the condition, and

the condition is associated with TNF- α convertase activity.

20

- 92. A method according to claim 91, wherein the compound corresponds in structure to a compound recited in claim 15.
- 93. A method according to claim 91, wherein the compound corresponds in structure to a compound recited in claim 29.
 - 94. A method according to claim 91, wherein the compound corresponds in structure to a compound recited in claim 34.

5

10

- 95. A method according to claim 91, wherein the condition is selected from the group consisting of inflammation, a pulmonary disease, a cardiovascular disease, an autoimmune disease, graft rejection, a fibrotic disease, cancer, an infectious disease, fever, psoriasis, hemorrhage, coagulation, radiation damage, acute-phase responses of shock and sepsis, anorexia, and cachexia.
- 96. A method for preventing or treating a condition associated with aggrecanase activity in a host animal, wherein the method comprises administering a compound of claim 14 (or a pharmaceutically-acceptable salt thereof) to the host animal in an amount effective to prevent or treat the condition.
- 97. A method according to claim 96, wherein the compound corresponds in structure to a compound recited in claim 15.
- 98. A method according to claim 96, wherein the compound corresponds in structure to a compound recited in claim 29.
 - 99. A method according to claim 96, wherein the compound corresponds in structure to a compound recited in claim 34.
 - 100. A method according to claim 96, wherein the condition comprises an inflammation condition.
- 101. A method according to claim 100, wherein the condition is selected 25 from the group consisting of osteoarthritis, rheumatoid arthritis, joint injury, reactive arthritis, acute pyrophosphate arthritis, and psoriatic arthritis.
 - 102. A method according to claim 96, wherein the condition comprises cancer.

103. A method according to claim 96, wherein the method further comprises administering the compound or salt thereof to prevent or treat a condition associated with matrix metalloprotease activity.

5

104. A method according to claim 103, wherein the condition associated with matrix metalloprotease activity comprises a condition associated with matrix metalloprotease-2, matrix metalloprotease-9, and/or matrix metalloprotease-13 activity.

10

- 105. A pharmaceutical composition comprising a compound recited in claim 1 or a pharmaceutically acceptable salt thereof.
- 106. A pharmaceutical composition according to claim 105, wherein the compound corresponds in structure to a compound recited in claim 3.
 - 107. A pharmaceutical composition comprising a compound recited in claim 14 or a pharmaceutically acceptable salt thereof.
- 20 108. A pharmaceutical composition according to claim 107, wherein the compound corresponds in structure to a compound recited in claim 15.
 - 109. A pharmaceutical composition according to claim 107, wherein the compound corresponds in structure to a compound recited in claim 29.

25

110. A pharmaceutical composition according to claim 107, wherein the compound corresponds in structure to a compound recited in claim 34.